REMARKS

The present Amendment amends claims 1, 4, 7, 9, 10, and 11, leaves claims 3, 6, 8, 12, and 13 unchanged. Therefore, the present application has pending claims 1, 3, 4, and 6-13.

35 USC §102 Rejections

Claims 1, 3, 4, and 6-13 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,006,264 to Colby, et al. ("Colby"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 1, 3, 4, and 6-13, are not taught or suggested by Colby, whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features the features of the present invention. Specifically, amendments were made to the claims to more clearly describe that the present invention is directed to a video content transmitting system and method as recited, for example, in independent claims 1, 4, 7, 9, 10 and 11.

The present invention as recited in independent claim 1, and as similarly recited in independent claims 4, 7, 9, 10, and 11, provides a video content transmitting system and method, the system including a plurality of video content transmitting servers that transmit requested video contents in response to a request from video content play terminals connected to the servers via a network. The system includes a means for storing a plurality of network protocols that facilitate video content transmission between the video content transmitting servers and the

video content play terminals. The means for storing information includes a table that includes a listing of the protocols, servers, and terminals, and that correlates each of the protocols to each combination of servers and terminals (see, e.g., Fig. 4). Also, according to the present invention, each of the plurality of protocols is specified for a corresponding network route for video content transmission between each of the plurality of video content transmitting servers and each of the plurality of video content play terminals. The system also includes a means for selecting a video content transmitting server based on a determination of a protocol from the table, with respect to the video content play terminal issuing the request for video contents. The prior art does not disclose all of the above described features.

To further illustrate features of the claimed invention, the Examiner's attention is directed to Fig. 4, for example. As shown, the present invention includes a table that correlates a corresponding combination of a server and terminal to a protocol. For example, when a server B and a terminal A are combined, the protocol is UDP/IP. When the server B and a terminal B are combined, the protocol is HTTP. With further reference to Fig. 3, a network route is not provided between server C and either of terminal A or terminal B. Therefore, no protocol is indicated under "usable protocol" in Fig. 4. In this manner, a table the present invention provides a table that includes a different protocol for each combination of a server and terminal. As such, the protocol for which a router located in a communication route for communication between the server B and the terminal A corresponds is stored in the table.

In addition to the above described features, independent claim 4 recites, and independent claims 7, 10, and 11 similarly recite, a system or method, the system

further including a means for managing information of a total available bandwidth for video content transmission and for managing information of a bandwidth currently in use. The means for managing information includes a table storing information that indicates a correlation between each network route, the total available bandwidth, and the bandwidth currently in use (see, e.g., Fig. 5). The system also includes a bandwidth calculating means for calculating a bandwidth of the network route to be used for transmission of the requested video contents and a transmission processing means. The transmission processing means is for determining the video content transmitting server capable of transmitting the requested video contents to the requested video content play terminal, in accordance with the total available bandwidth, the current bandwidth, and the calculated bandwidth needed for video content transmission. The prior art does not disclose all of the above described features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record, particularly Colby, whether taken individually or in combination with any of the other references of record.

Colby discloses a method and system for directing flow between a client and a server. In Colby, a content-aware flow switch intercepts a client content request in an IP network, and transparently directs the content request to a best fit-server. The best-fit server is chosen based on the type of content requested, the quality of service requirements implied by the content request, the degree of load on available servers, network congestion information, and the proximity of the client to available servers.

In the present invention, the system as recited in claim 1, and as similarly recited in claims 4, 7, 9, 10, and 11, includes a means for storing information. The means for storing information includes a table that contains information identifying a plurality of protocols, video content play terminals, and video content transmitting servers. The information is arranged in the table such that each of the protocols correlates to a terminal and server combination. Also, according to the present invention, each of the plurality of protocols is specified for a corresponding network route for video content transmission between each of the plurality of video content transmitting servers and each of the plurality of video content play terminals. Colby does not disclose these features. As described in column 6, lines 42-63, Colby discloses a content server database (CSD) that maintains several databases containing information relating to content flow characteristics, content locality, and the location of and the load on servers. One database maintained by the CSD contains server records, each of which contains information about a particular server. The server record contains, for example, the server's internet protocol (IP) address, protocol, a port of the server through which the server can be accessed by the flow switch, and indication of whether the server is local or remote with respect to the flow switch, and load metrics indicating the load on the server. In this way, Colby discloses information relating to a server only, rather than information relating to a server and terminal combination, as claimed.

In response to Applicants' arguments, the Examiner asserts that Colby discloses that the CSD correlates specific combinations of servers and clients, such as the "sticky" server to which a particular client is "stuck", citing column 10, lines 51-67. The Examiner further asserts that because the CSD server records indicate a

17

correlation between each of the plurality of protocols and a corresponding server, and furthermore a server-client combination, it follows that the CSD indicates a correlation between each of the plurality of protocols and a corresponding combination of one of the servers and one of the clients. However, the features of the present invention, as now more clearly recited, are not taught or suggested by Colby. More specifically, there is no teaching suggestion in Colby of a table that "includes" a listing the plurality of video content play terminals, as claimed. As previously discussed, Colby merely discloses storing information relating to the servers only. There is no teaching or suggestion in Colby of a table that includes a listing of the plurality of video content play terminals, as claimed. Furthermore, as described in column 10, lines 51-67, Colby discloses a correlation between servers and protocols, and a correlation between servers and clients. However, from such indications, an available protocol is determined merely based on the server, and is not determined based on the client, as in the present invention. Therefore, the table structure and server determination or management approaches based on the table are entirely different from the present invention.

Furthermore, Colby does not teach or suggest where each of the plurality of protocols is specified for a corresponding network route for video content transmission between each of the plurality of video content transmitting servers and each of the plurality of video content play terminals, as now more clearly recited in the claims. In the present invention, an available protocol can be determined for different network routes. As such, a protocol can be determined for different terminals while using the same server. Colby does not disclose this feature.

18

Another feature of the present invention, as recited in claim 1, and as similarly recited in claims 4, 7, 9, 10, and 11, includes a means for selecting a video content transmitting server from the plurality of servers based on a protocol determination from the table, with respect to the video content play terminal that issued the request for video transmission. As previously discussed, Colby does not disclose a table indicating a correlation between the protocols, servers, and terminals, as claimed. Therefore, it follows that Colby does not disclose a means for selecting a server based on a protocol determination from the table, as claimed.

Yet another feature of the present invention, as recited in claim 4 and as similarly recited in claims 7, 10, and 11, includes a means for managing information relating to a total available bandwidth for video content transmission in a network route between each video content play terminal and each video content transmitting server, and for managing information relating the bandwidth currently in use for the video content transmission. The managing means includes a table that stores information indicating a correlation between each network route, the total available bandwidth, and the bandwidth currently in use. Colby does not disclose where the means for managing information includes a table that stores information indicating a correlation between each network route, the total available bandwidth, and the bandwidth currently in use, and in the rejections of claims 4, 7, 10, and 11, the Examiner has not provided any support for his assertions that Colby discloses this feature. Regarding this feature, when networks are separate from each other and the network is branched as shown, for example, in Fig. 3 (i.e., when a communication route between a server and at terminal is not uniform), interference occurs in part of the routes between traffic of a server-terminal and traffic of another

server-terminal. Accordingly, a relevant server cannot be selected by purely determining only the load states of servers, as in Colby. To overcome this problem of the prior art, the present invention provides a table, as shown in Fig. 5. The table includes information regarding a total usable bandwidth and a bandwidth currently in use, of each network route between each video content transmitting server and each video content play terminal. In the present invention, the total available bandwidth and the bandwidth currently in use for each communication route between the server and terminal are managed. As a result, a relevant server can be selected by taking into account interference due to the other server/terminal traffic or by taking into account the communication route information. Colby does not disclose the claimed feature, and as such, Colby does not teach a means for managing information, as claimed.

In response to Applicants arguments that Colby does not teach a table storing information indicative of a correlation between each network route, the total available bandwidth, and the bandwidth currently in use, the Examiner asserts that Colby discloses that these quantities are used by the flow switch flow admission control in determining whether to accept a new flow with particular QoS requirements (citing column 14, lines 5-19), and further asserts that such information is furnished by the CSD (citing column 7, lines 20-29). However, neither the cited text, nor any other portion of Colby teach or suggest a table, as claimed.

Therefore, Colby fails to teach or suggest "means for storing information of a plurality of network protocols capable of video content transmission between the plurality of video content play terminals and the plurality of video content transmitting servers, said means for storing information including a table of protocols for

facilitating communication for each combination of one of the plurality of said video content transmitting servers and one of the plurality of said video content play terminals,

wherein the table includes a listing of the plurality of network protocols, the plurality of video content transmitting servers, and the plurality of video content play terminals, and indicates a correlation between each of the plurality of protocols and a corresponding combination of one of the plurality of said video content transmitting servers and one of the plurality of video content play terminals, and

wherein each of the plurality of protocols is specified for a corresponding network route for video content transmission between each of the plurality of video content transmitting servers and each of the plurality of video content play terminals" as recited in claim 1, and as similarly recited in claims 4, 7, 9, 10, and 11.

Furthermore, Colby fails to teach or suggest "means for selecting a video content transmitting server from the plurality of video content transmitting servers based on a protocol determination of the protocols of the table in respect of the video content play terminal issuing the request to thereby determine the video content transmitting server capable of transmitting said requested video contents to the video content play terminal requesting said video content transmission" as recited in claim 1, and as similarly recited in claims 4, 7, 9, 10, and 11.

Even further, Colby fails to teach or suggest "means for managing information of a total available bandwidth for video content transmission of a network route between each video content play terminal and each video content transmitting server, and information of a bandwidth now in use for the video content transmission, said managing means including a table storing information indicative of a correlation

between each network route, the total available bandwidth, and the bandwidth now in use" as recited in claim 4, and as similarly recited in claims 7, 10, and 11.

Therefore, Colby fails to teach or suggest all the features of the present invention, as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §102(e) rejection of claims 1, 3, 4 and 6-13 is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1, 3, 4 and 6-13.

In view of the foregoing amendments and remarks, Applicants submit that claims 1, 3, 4 and 6-13 are in condition for allowance. Accordingly, early allowance of claims 1, 3, 4 and 6-13 is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger & Malur, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. 500.39531X00).

Respectfully submitted,

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22